

Amendments to the Claims

The following is a complete listing of the claims, that will replace all prior versions of the claims in the application, with each claim marked with an appropriate status identifier in accordance with 37 C.F.R. § 1.121.

WE CLAIM:

1 – 70. (canceled)

71. (original) A prosthetic material comprising:
a scaffold having interconnecting, uniformly shaped pores; and
an ingrowth matrix within the pores, wherein the ingrowth matrix
comprises a concentration gradient of material.

72. (original) The prosthetic material of Claim 71 wherein the
material in the concentration gradient comprises a synthetic material.

73. (original) The prosthetic material of Claim 72 wherein the
synthetic material comprises a hydrogel.

74. (original) The prosthetic material of Claim 71 wherein the
material in the concentration gradient comprises a protein.

75. (original) The prosthetic material of Claim 74 wherein the
protein is selected from the group consisting of fibrin, collagen,
glycosaminoglycan, and combinations thereof.

76. (original) The prosthetic material of Claim 71 wherein the
material in the concentration gradient comprises a protein and a synthetic material.

77. (original) The prosthetic material of Claim 71 wherein the material in the concentration gradient comprises a growth factor.

78. (original) The prosthetic material of Claim 71 wherein the material in the concentration gradient comprises a peptide.

79. (original) The prosthetic material of Claim 71 wherein the concentration gradient comprises a delivered gene.

80. (original) The prosthetic material of Claim 71 wherein the concentration gradient comprises a fibrin matrix.

81. (original) The prosthetic material of Claim 71 wherein the concentration gradient comprises a polyethylene glycol matrix.

82. (original) The prosthetic material of Claim 71 further comprising interconnecting, helically oriented channels within the scaffold.

83. (original) The prosthetic material of Claim 71 wherein substantially all of the pores have diameters within 300 μm of one another.

84. (original) The prosthetic material of Claim 71 wherein the pores are spherically shaped.

85. (original) The prosthetic material of Claim 71 comprising a vascular graft.

86. (original) The prosthetic material of Claim 71 comprising a sewing ring.

87. (original) The prosthetic material of Claim 71 comprising a synthetic heart valve.

88 – 102. (canceled)